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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,367	03/15/2001	Edward J. Hogan	AP33088-070457.0985	5526

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EXAMINER

HEWITT II, CALVIN L

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,367

Applicant(s)

HOGAN ET AL.

Examiner

Calvin L Hewitt II

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Status of Claims

1. Claims 1-10 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites a second payment number being reusable, "by the purchaser for as long as the first payment account is usable by the purchaser".

Claim 4 contains a similar recitation. However, this limitation is not supported by the Specification. While Applicant discloses the one-to-one relationship that exists between a real and pseudo card numbers (Specification, figures 3a-b; paragraph [0008]), to one of ordinary skill if it is determined that the pseudo-number is no longer trusted or it has been compromised, a user can still use the

first number and a new pseudo-number would be calculated, thus leaving the old pseudo number obsolete.

Claims 2 and 3, and 5-10 are also rejected as they depend from claims 1 and 4, respectively.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "requesting authorization for payment of said transaction with said second payment account number and not said first payment account number". To one of ordinary skill this requires clarification as Applicant's Specification clearly details authenticating a user transaction using both a real and pseudo card number (Specification, figures 4a and 4; paragraph [0027])).

Claims 2 and 3 are also rejected as they depend from claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al., U.S. Patent No. 6,163,771 in view of Flitcroft et al., U.S. Patent No. 6,636,833.

As per claims 1-7, 9, and 10, Walker et al. teach a method for conducting a secure transaction by providing users with a list of proxy credit card numbers (column 11, lines 20-25) comprising:

- assigning to a purchaser a first payment account number (real credit card number) having a status that changes over time, providing a second payment account number (pseudo credit card number) and having an encryption key assigned thereto (figures 7, 8 and 13; column 7, lines 20-26)
- requesting authorization for payment of said transaction with the second (pseudo) number and not the first (real), identifying said purchaser's first payment number in response to the authorization request and responding to the authorization request based upon

the status of the first number, based on a credit balance that changes over time (figures 3B, 9A-B, and 10-11B; column 7, lines 20-26)

- a response to the authorization request is based on cryptographic code based on said encryption key (figures 6 and 9A-B; column 7, lines 28-51)
- providing a purchaser with a secure payment application which includes a cryptographic key that is unique to the first account number and a second or pseudo account number of the same length as the first (figures 6 and 7; column 6, lines 30-53; column/line 7/27-8/36)
- providing a purchaser with merchant data and generating a message authentication code as a function of merchant data and said cryptographic key and providing a merchant with the code and the pseudo account number (figure 3B; column 6, lines 15-28; column 9, lines 30-36)
- cryptographically processing the pseudo account number to produce the first account number (column/line 8/1-9/9)
- differentiating the pseudo number from the first number by special identifier within the pseudo account number, and by data within a

transaction record (figures 7, 8 and 13; column 7, lines 37-51;
column 8, lines 9-36)

- cryptographic key is a secret key (abstract)

Walker et al. do not specifically recite verifying that merchant data is correct.

However, it would have been at least obvious to one of ordinary skill for a user or merchant to verify the amount to ensure that the user is being billed properly, and for the user, merchant or credit card issuer to verify the correctness of the merchant ID in order to prevent transaction cancellation based on an incorrect merchant ID. Regarding DES and DESX, Walker et al. implement their system using cryptographic algorithms (column 2, lines 30-34; column 7, lines 3-8).

Hence, it would have been obvious to one of ordinary skill to encrypt the pseudo account number using RSA, DES or its variants such as DSA or DESX. Walker et al. do not explicitly recite re-usable pseudo account numbers. Flicroft et al. teach a credit card system for providing users with limited-use card numbers (e.g. single use, reusable) (abstract; column 6, lines 52-64). Specifically, teach a system for creating an encrypted list proxy or second card number from a first (e.g. via mapping, no discernable link for obtaining the first number from the proxy, additional card numbers cannot be predicted from those proxy numbers previously issued) (column 10, lines 8-11; column 11, lines 10-14; column/line 12/10-13/15; column/line 19/65-22/57). Flicroft et al. also teach limiting pseudo-card use based on a prescribed threshold (column 6, lines 52-64). For example,

Flicroft et al. teach pseudo cards that are valid as long as the sum of the transaction in which the cards are used does not accumulate to a limit (column 7, lines 55-64). Further, Flicroft et al. teach pseudo cards that are limited only by geographic location and purpose (column 8, lines 1-10 and 24-30), hence, Flicroft et al. teach second or pseudo cards that are reusable as long as the real or first number is reusable. Therefore, it would have been obvious to one of ordinary skill to combine the teachings of Walker et al. ('771, figure 13) and Flitcroft et al. in order to create a more flexible system by allowing users to use proxy card numbers for multiple transactions ('833; column 6, lines 52-64) and obtain additional lists of numbers ('771, figure 13, column 11, lines 20-25; '8.33, column 18, lines 25-44; column 19, lines 10-15)

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al., U.S. Patent No. 6,163,771 and Flitcroft et al., U.S. Patent No. 6,636,833 as applied to 4, and in further view of Lee et al., U.S. Patent No. 6,018,717.

As per claim 8, Walker et al. teach a message authentication code that comprises a digital signature generated by a secure payment application (column 8, lines 9-36). However, Walker et al. do not specifically recite public key

certificates. Lee et al. teach a method for performing secure transactions using card unique certificates that are associated with a public key of a private/public key pair (column/line 11/15-12/18). Therefore, it would have been obvious to one of ordinary skill to combine the teachings of Walker et al. and Lee et al. in order to uniquely associate a transaction message with a user ('717, column/line 10/38-11/13) and to, in the event the private key ('771, abstract) is obtained by a malicious user, to provide protection against fraud by using different keys to encrypt and decrypt a transaction message ('717, column/line 10/38-11/13).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Calvin Loyd Hewitt II whose telephone number is (703) 308-8057. The Examiner can normally be reached on Monday-Friday from 8:30 AM-5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, James P. Trammell, can be reached at (703) 305-9768.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
c/o Technology Center 2100
Washington, D.C. 20231

or faxed to:

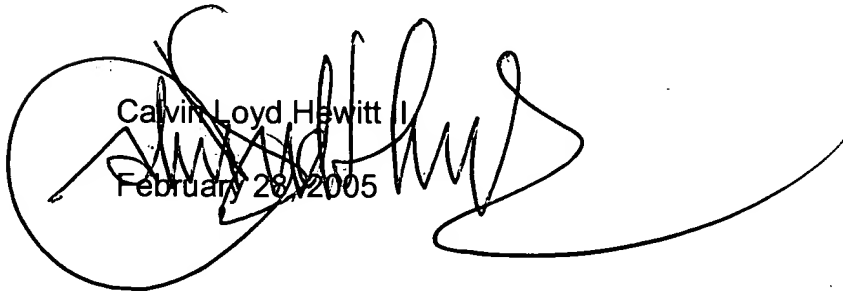
(703) 305-7687 (for formal communications intended for entry and
after-final communications),

or:

(703) 746-5532 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 5,
2451 Crystal Drive, 7th Floor Receptionist.

Any inquiry of a general nature or relating to the status of this application
should be directed to the Group receptionist whose telephone number is (703)
308-1113.


Calvin Loyd Hewitt
February 20, 2005